KYABRAM

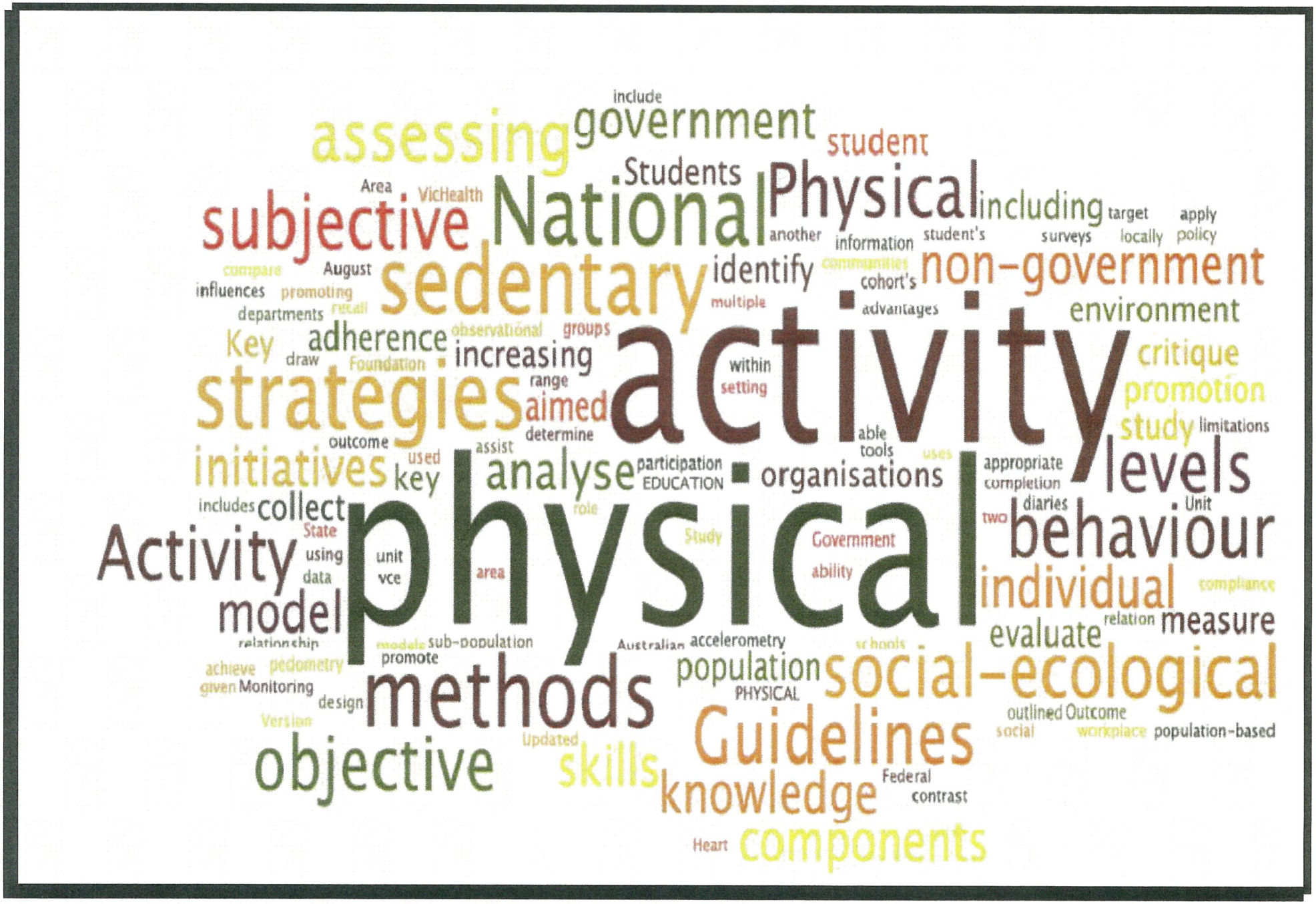
St. Augustines

STRENGTH & KINDLINESS

2014

VCE PE*

Early Commencement Program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social
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objective
skills
knowledge
Federal
contrast
Heart
components

KEY KNOWLEDGE AREA & KEY SKILLS CHECKLIST

Key Knowledge Area & Key Skills	✓
Unit 3: Physical Activity Participation and Physiological Performance Tick each area once completed ✓ **AOS 1: Monitoring and Promoting Physical Activity**	
Subjective __ and objective __ methods of assessing physical activity and sedentary behaviour __	
Recall surveys __ or diaries __, pedometry __, accelerometry __ and observational tools __, in relation to the National Physical Activity Guidelines __	
Components of social-ecological models __ (individual __, social environment __, physical environment __ and policy __)	
The relationship between the multiple levels of influences and physical activity	
The role of government __ and non-government __ organisations in promoting adherence to the National Physical Activity Guidelines	
Policy or environment intervention strategies for schools __, workplace __ and communities __, including VicHealth __, National Heart Foundation __, State and Federal Government departments __	
A range of individual __ and population-based __ Australian physical activity promotion initiatives and strategies.	
Key Skills	
• compare and contrast subjective __ and objective __ methods of assessing sedentary behaviour and physical activity compliance with the National Physical Activity Guideline	
• collect, measure and evaluate data using subjective and objective methods of assessing physical activity and sedentary behaviour	
• identify components of the social-ecological model	
• apply a social-ecological model to critique physical activity strategies used by government __ and non-government __ organisations to target two sub-population groups __	
• collect and analyse information on initiatives and strategies aimed at increasing physical activity levels locally.	

VCE Physical Education Unit 3 Area of Study 1

Glossary of Terms

Subjective Measures –

Objective Measures –

MET –

Sedentary –

NPAG –

Self-Efficacy -

Reactivity -

Social Desirability Bias –

Socio-Ecological Model –

Cognitive

Validity –

Domain –

Counselling –

Mass Media –

Settings Based Approach -

Australian Government

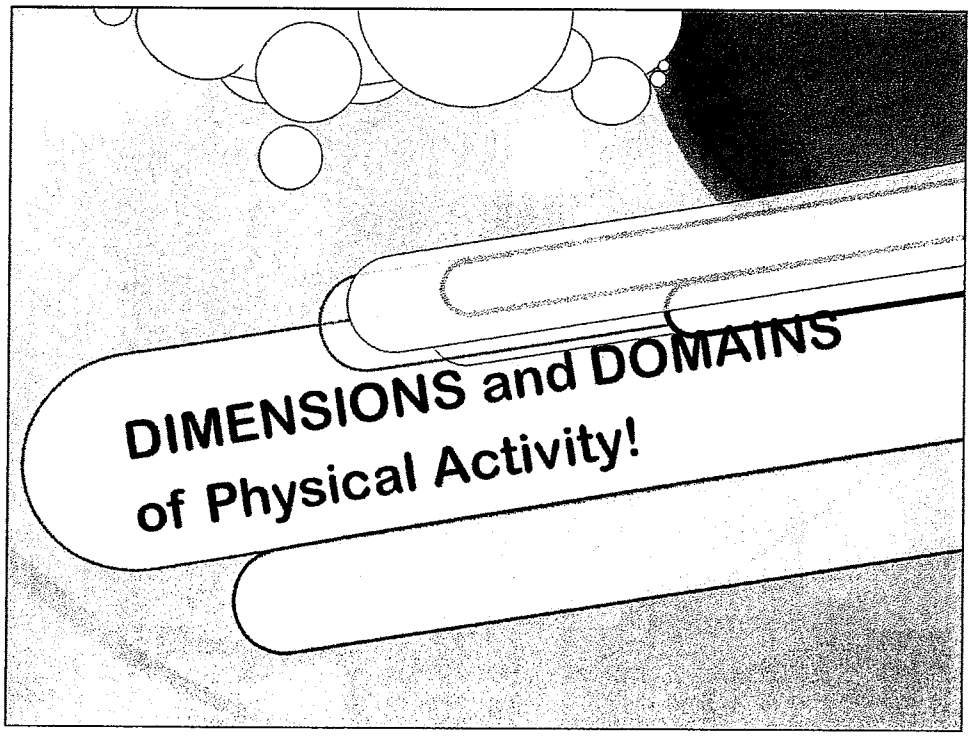
Department of Health and Ageing

National Physical Activity Guidelines

Subgroup	Physical Activity Guidelines	Sedentary Behaviour Guidelines
Children 0-5 years		

Children 5-12 years		
Young People 13-17 ears		

Adults 18-64 years		
Older Australians 65+		



Dimensions of physical activity.

- F =
- I =
- T =
- D =
- C =

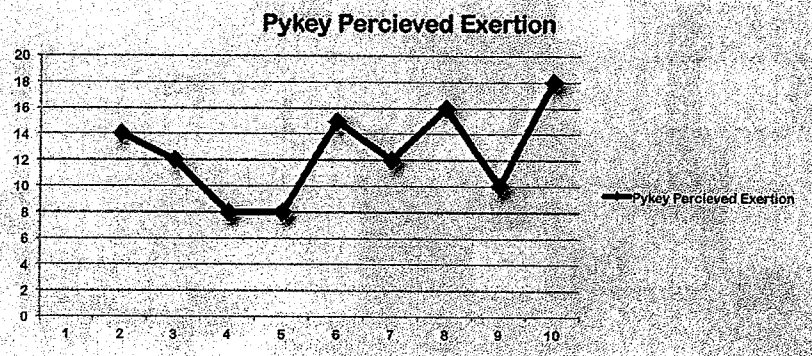
Frequency

- Definition
- How can we measure it?

Intensity

- Definition -
- How can intensity be assessed?

Measuring intensity : Pykeys percieved exertion using Borg Scale during fitness circuit



METs

- Definition -
- Low intensity –
- Medium intensity –
- Vigorous intensity -
- What MET value will the following activities. Guess then use page

Met value =

MET value =

MET value =

Add in more examples of your own

Classification of physical activity intensity

1.3

Intensity classification	Description	METs	Energy expended (kJ/min)	% max HR	Examples of activities
Low intensity (light)	This is the lightest category in terms of perceived and actual exertion and energy expenditure.	<3	<15	<50	Walking slowly, golf, gardening, household chores
Moderate intensity	Generally consists of sustained rhythmic movements. At this level you should feel some exertion but still be able to carry out a conversation comfortably.	3–6	15–30	50–70	Bike-riding (moderate pace), playing tennis doubles, dancing, weight-lifting
Vigorous intensity	Participation at this level leads to a substantial increase in heart and respiratory rates.	7+	30+	70+	Skipping, running, boxing, playing squash

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ISBN: 9780170185925

Type

- **Definition**

Duration

- Definition

Context

Instruments used to measure physical activity

Instrument	Measure	Is instrument suitable for addressing:						Expense	Reactivity
		Frequency?	Intensity?	Duration?	Type?	Context?	Energy expenditure?		
Recall survey[1]	Subjective	Yes	Yes	Yes	Yes	Yes	Yes[3]	Low	n/a
Diary or log[1]	Subjective	Yes	Yes	Yes	Yes	Yes	Yes[3]	Low	High
Pedometer	Objective	No	No	No	No	No	Yes[4]	Low	Low
Accelerometer	Objective	Yes[2]	Yes[2]	Yes[2]	No	No	Yes[3]	High	Low
Direct observation	Objective	Yes	Yes	Yes	Yes	Yes	Yes[3]	Moderate	High

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ISBN: 9780170166926

NPAG and Elements

Adults

- F -
- I -
- T -
- D -

Older adults

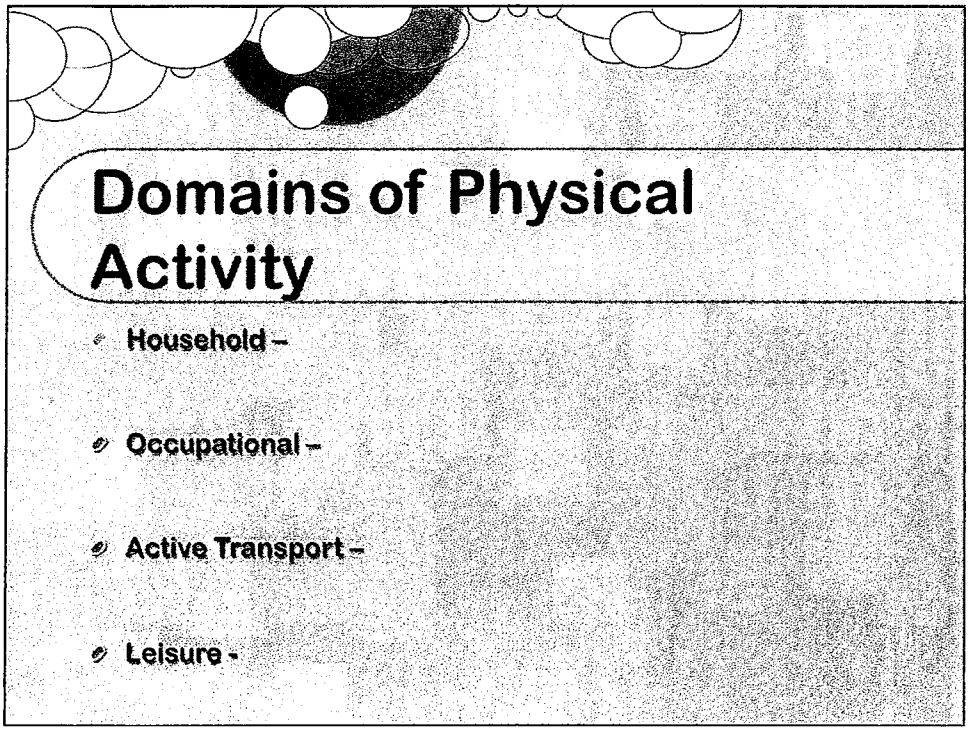
- F -
- I -
- T -
- D -

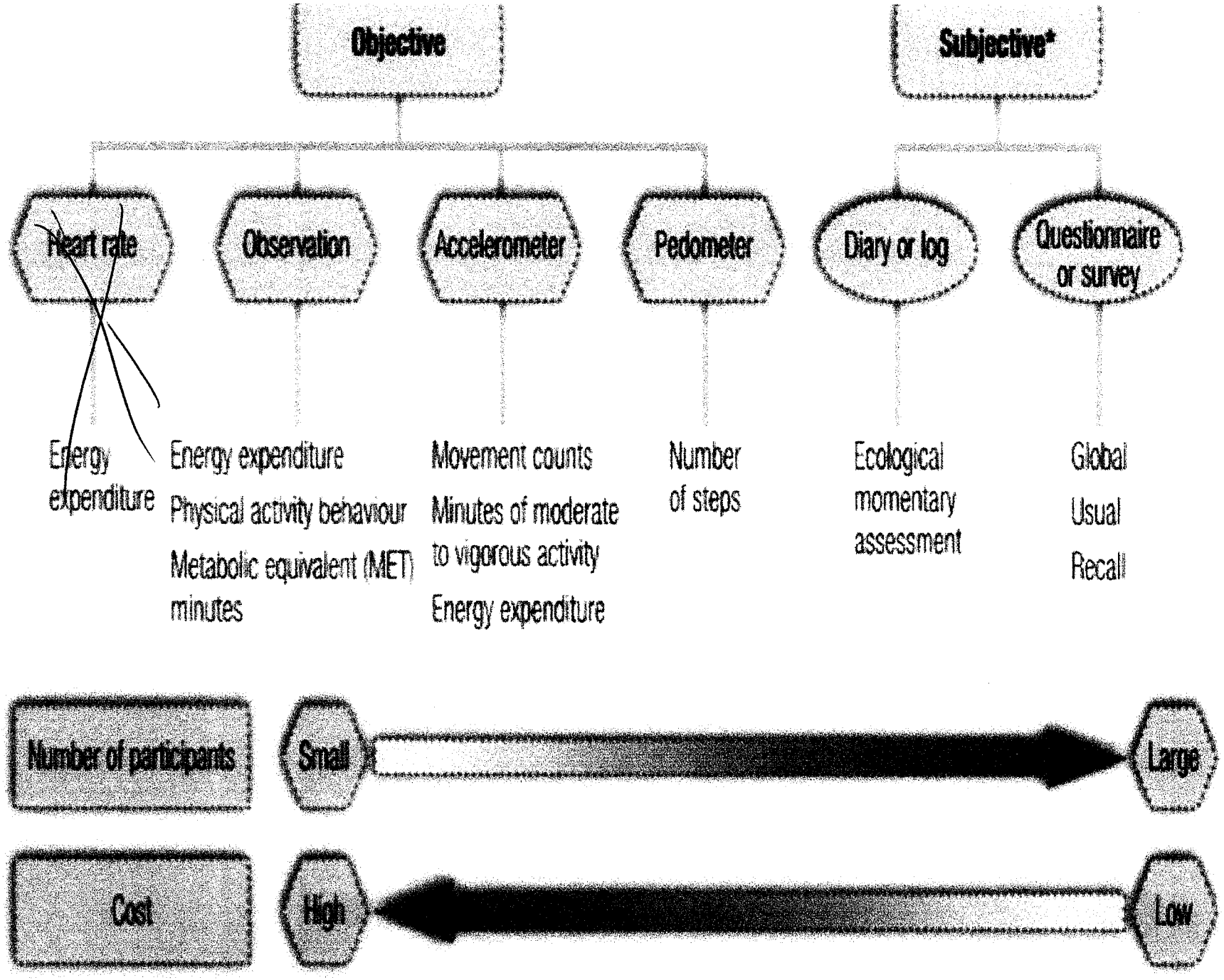
12-18 Year olds

- F -
- I -
- T -
- D -

5-12 Year olds

- F -
- I -
- T -
- D -


Domains of Physical Activity
Household –
Occupational –
Active Transport –
Leisure -


Objective
Subjective*
Heart rate
Observation
Accelerometer
Pedometer
Diary or log
Questionnaire or survey
Energy expenditure
Energy expenditure
Physical activity behaviour
Metabolic equivalent (MET) minutes
Movement counts
Minutes of moderate to vigorous activity
Energy expenditure
Number of steps
Ecological momentary assessment
Global
Usual
Recall
Number of participants
Small
Large
Cost
High
Low

Methods of Assessing Physical Activity

Measure	Description	Subjective or Objective	Advantages	Disadvantages
Diary/Log				
Recall Survey				

Pedometer				
Accelerometer				
Observation				

Summary of Measurement Tools

Tool	Recall	Logs/diaries	Direct observation	Pedometry	Accelerometry
Subjective (S) or Objective (O)	S	S	O	O	O
Frequency	✓	✓	✓	×	✓
Intensity	✓	✓	✓	×	✓
Duration	✓	✓	✓	×	✓
Type	✓	✓	✓	×	×
Context	✓	✓	✓	×	×
Cost	Low	Low	Moderate	Low	High
Reactivity	None	Moderately high	High	Moderate	Low

Homework – ECP Week 1

Due Wednesday December 3rd

Key Skill being completed

- ***Compare and contrast subjective and objective methods of assessing sedentary behaviour and physical activity compliance with the National Physical Activity Guidelines***

Complete the table

Measures	Compare (Similarities)	Differences (Contrast)
Recall Survey and Pedometer	Both are inexpensive and can be used with large groups.	Survey can assess all domains (FITDC) whereas pedometer can not. Survey = Subjective Pedometer - Objective
Accelerometer and Direct Observation		
Diary and Accelerometer		

Direct Observation and Recall Survey		
Pedometer and Acclerometer		
Direct Observation and Pedometer		
Diaries and Recall Survey		
Accelerometer and Recall Survey		
Direct Observation and Diary		

Diary

healthy kids
eat well, get active

www.healthykids.nsw.gov.au

Activity Diary

Print this page each week and record your physical activity type and duration in the table below. Aim for at least 60 minutes each day.

Date:

	Before school / morning	During school / daytime	After school / afternoon	Evening	Total (time)
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

NSW Heart Foundation

An initiative of NSW Department of Health; NSW Department of Education and Training; Sport and Recreation, a division of Communities NSW and the Heart Foundation.

RECALL SURVEY

SELF-ADMINISTERED PHYSICAL ACTIVITY CHECKLIST (SAPAC) AUSTRALIAN VERSION

Section A

A1 Form version 06/10/2000
A2 Today's date __/__/____
A3 Administrator's initials ___
A4 School starting time __:__ (24 hour clock)
A5 School ending time __:__ (24 hour clock)

A6 Did you participate in physical education class yesterday? NO.....1 YES.....2
A7 If yes, how many minutes long was physical education class? ____ minutes
A8 Did you participate in recess yesterday? NO.....1 YES.....2
A9 If yes, how many minutes of recess did you have? ____ minutes (recess)
____ minutes (lunch)

Activity	B. Before school	None (N) Some (S) Most (M)	C. During school	None (N) Some (S) Most (M)	D. After school	None (N) Some (S) Most (M)
Bicycling						
Swimming laps						
Gymnastics: bars, beam, trampoline						
Exercise: pushups, situps						
Weightlifting						
Basketball						
Netball						
Cricket						
Baseball/softball						
Football (Australian Rules)						
Football (Rugby Union or Rugby League)						
Soccer						
Volleyball						
Skating: roller, rollerblade						
Hockey: field/ice						
Racquet sports						
Ball playing: downball/handball						
Active games: chase, tag						
Outdoor play: climbing trees, hide and seek						
Water play						
Martial arts						
Dance						
Outdoor chores: mowing, raking, gardening						
Indoor chores: mopping, vacuuming, sweeping						
Mixed walking/running						
Walking						
Running						
Other activities:						

	Before school	After school
TV/video	___ hours plus ___ minutes	___ hours plus ___ minutes
Video games and computer games	___ hours plus ___ minutes	___ hours plus ___ minutes

FIGURE 1.6 Self-administered Physical Activity Checklist

Source: TD Brown, Monash University & BV Holland, RMIT University. Brown, TD & Holland, BV 2004, 'Test–retest reliability of the Self-assessed Physical Activity Checklist', *Perceptual and Motor Skills*, vol. 99, no. 3, part 2, pp. 1099–1102.

OBSERVATION - OBJECTIVE

Modified SOFIT recording sheet

Date: _____ /_____ /_____ **School:** _____ **Location:** _____

Observer: _____ **Number of students:** _____ **Number of observations:** _____

Start time: _____ **End time:** _____ **Lesson length (min):** _____

Student, gender	Interval	Student activity					Lesson context		
Student 1 (circle) M F	1	1	2	3	4	5	M	S	G
	2	1	2	3	4	5	M	S	G
	3	1	2	3	4	5	M	S	G
	4	1	2	3	4	5	M	S	G
	5	1	2	3	4	5	M	S	G
	6	1	2	3	4	5	M	S	G
	7	1	2	3	4	5	M	S	G
	8	1	2	3	4	5	M	S	G
	9	1	2	3	4	5	M	S	G
	10	1	2	3	4	5	M	S	G
	11	1	2	3	4	5	M	S	G
	12	1	2	3	4	5	M	S	G
Totals									
Student 2 (circle) M F	1	1	2	3	4	5	M	S	G
	2	1	2	3	4	5	M	S	G
	3	1	2	3	4	5	M	S	G
	4	1	2	3	4	5	M	S	G
	5	1	2	3	4	5	M	S	G
	6	1	2	3	4	5	M	S	G
	7	1	2	3	4	5	M	S	G
	8	1	2	3	4	5	M	S	G
	9	1	2	3	4	5	M	S	G
	10	1	2	3	4	5	M	S	G
	11	1	2	3	4	5	M	S	G
	12	1	2	3	4	5	M	S	G
Totals									

Student activity

1 = Lying
2 = Sitting
3 = Standing
4 = Walking
5 = Very active

Lesson context

M = Management
Not involved in knowledge or movement (e.g. splitting into teams, changing equipment, moving from one activity to the next)

Motor content (moving)

S = Skill practice
Activities primarily to improve or practise skills

G = Game play
Application of skills in game or competition

Adapted from: McKenzie 2002

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Pedometer Challenge

As we know being active is vital to our health. One way to assess how physically active we are throughout a day is by wearing a pedometer. This challenge will be between 8 Year 12 VCE PE students and 8 staff from different departments will measure their steps each day for a week.

What you need to do is reset the pedometer each morning and clip it to the top of your your belt/pants and it will count the number of steps you take. At the end of each day you need to write down how many steps you have taken.

The data will be used to provide evidence for discussion in class, which will help students understand the PE content.

Please return this sheet to Mr Saunders on conclusion of the week. Thank you for participating!!

Day	Steps taken
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Total Steps for week	

Accelerometer

Team AMS R1 2013.19

File Help

Finder
- Analysis
- Players
- Downloads
- Sessions

Views
- By Player
- By Session
- Player By Round
- Player By Opposition
- Position By Round

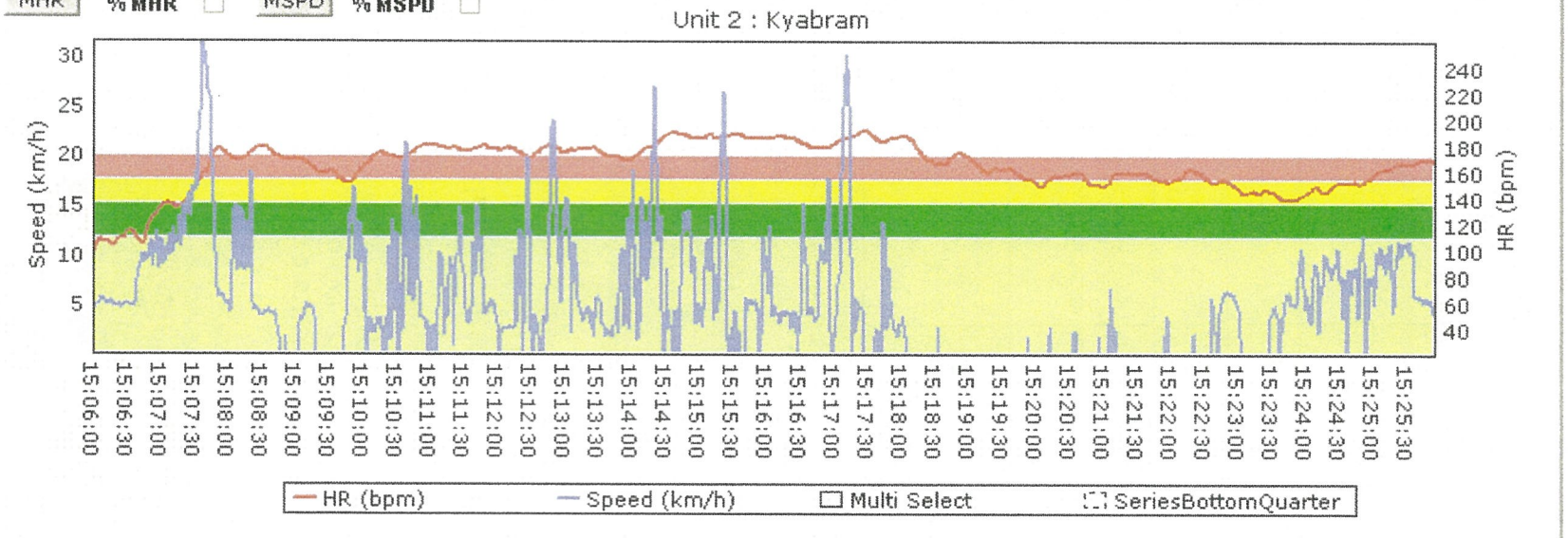
History
- Unit 2 : Kyabram
- Unit 1 : Kyabram
- Unit 3 : Echuca 1
- Unit 2 : Echuca 1
- Unit 1 : Echuca 1
- Unit 5 : Fitzroy High
- Unit 4 : Fitzroy High

Analysis - Unit 2 : Kyabram

Graph | Table | Summary | Sprint | Map | Zones | Accelerometer

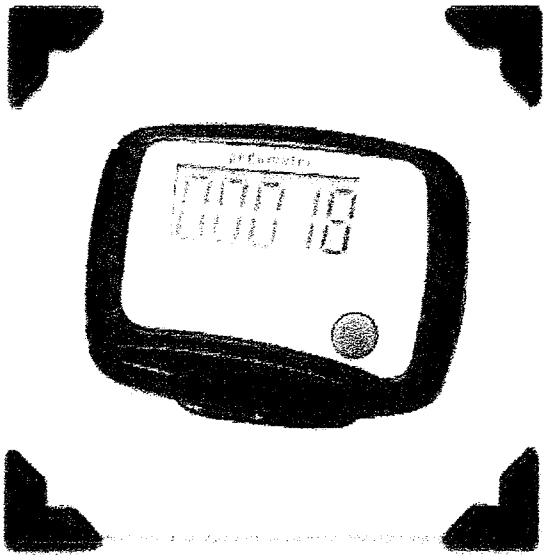
XTD Wizard Program Planner

MHR % MHR MSPD % MSPD



Start 15:05:58.00 End 15:25:53.00 <- Zoom

Start	End	Duration	Min. Speed	Max. Speed	Avg. Speed	Min. HR	Max. HR	Avg. HR
<No data to display>								



Methods of assessing PA activity

We will use the following methods of assessing and you must classify or rank them in each of the activities.

Pedometer
Accelerometer
Diary
Log
Recall survey
Observation

Define subjective methods of PA -

Define objective methods of PA -

Next to each of the above methods classify them as Subjective (S) or Objective (O)

Rank them in terms of cost (1.Most expensive 6. Least expensive)

Rank them in terms of number of participants they are suited to
(1.Biggest Groups 6. Smallest groups)

What do you notice about group size and cost

Rank them in terms of accuracy (1. Most accurate 6. Least accurate)

Rank them in terms of practicality (1. Most practical 6. Least practical)

What do you notice about accuracy and practicality

Rank them in terms of reactivity (1. Highest reactivity 6. Lowest reactivity)

What is different about administering a diary/log or recall survey to a child under 12?

Sedentary Behaviours :

- are associated with low levels of energy expenditure (1-2 METS) and linked to various negative health consequences
- involve sitting staying in the same place for long periods of time (watching TV, commuting by car, reading, using a computer, etc....)
- can be seen in people who are highly active - but not at the same time
- only apply to people up to 18 years of age in the National Physical Activity Guidelines (as of 2010) but likely to include adults in the future

table 1.12

Appropriate measures for assessing physical activity among population subgroups

Instrument subgroup	Self reported recall survey	Self-reported diary or log	Proxy report	Pedometer	Accelerometer	Direct observation
Children 0–9 years						
Children 10–12 years						
Adolescents						
Adults						
Older adults 65+ years						
People with an intellectual disability						
People from a NESB[1]						

Key: ✗ Not at all appropriate, ☺ Somewhat appropriate, ☺☺ Appropriate, ☺☺☺ Highly appropriate
Note: 1 NESB Non-English-speaking background 2 Only appropriate if translated into the language spoken

List and explain 3 individual strategies for promoting Physical Activity

1

2

3